ABSTRACT OF THE DISCLOSURE

In a 3-dimensional fast Fourier transformation implemented by using a parallel-processing computer, an

5   overhead caused by transfers of data between processors employed in the computer is reduced for the purpose of increasing the efficiency of processing parallelism. In order to reduce the overhead, data is divided into data elements each having an even X coordinate and data elements

10   each having an odd X coordinate. In processing 34, the date elements each having an even coordinate are subjected to the transformation in the Y direction while the date elements each having an odd X coordinate are being subjected to a process of permutation among the processors

15   at the same time. In processing 35, on the other hand, the data elements each having an odd X coordinate are subjected to the transformation in the X direction while the data elements each having even coordinate are being subjected to the process of permutation among the processors at the same

20   time. As a result, the communication time it takes to carry out the process of permutation among the processors can be concealed behind the processing time so that the efficiency of the processing parallelism can be increased over the processing efficiency of the conventional method.